

What is claimed is:

1. An activating apparatus for passenger protection devices in a vehicle, comprising:

5 a roll condition detecting means for detecting a roll condition of the vehicle;

activation determining means for, on the basis of the roll condition detected by the roll condition detecting means, determining likelihood of a vehicle rollover, and on the basis of a result of the determination, performing
10 determination on the activation of a passenger protection device on a driver's seat side and a passenger protection device on a navigator's seat side of the vehicle;

occupant detecting means for detecting an occupant in the vehicle; and

determination condition changing means incorporated in the activation
15 determining means for, when only the presence of an occupant on a driver's seat has been detected by the occupant detecting means, changing determination conditions relating to the vehicle rollover that are used for the determination of activation of the passenger protection device on the navigator's seat side, into conditions that make it difficult for the activation
20 determining means to render a decision that a vehicle rollover is imminent.

2. The activating apparatus according to claim 1, wherein the roll condition detecting means comprises roll angular rate detecting means for detecting a roll angular rate of the vehicle, and roll angle detecting means for detecting a
25 roll angle of the vehicle or roll angle calculating means for calculating by integration a roll angle of the vehicle from the roll angular rate detected by the roll angular rate detecting means, and the determination condition changing

means, when the presence of an occupant on the driver's seat and the presence of an occupant on the navigator's seat have been detected by the occupant detecting means, allows the activation determining means to perform determination of the likelihood of a vehicle rollover based on the roll angle and the roll angular rate, and when only the presence of an occupant on the driver's seat has been detected by the occupant detecting means, allows the activation determining means to perform determination of the likelihood of a vehicle rollover based solely on the roll angle.

3. The activating apparatus according to claim 1, wherein the roll condition detecting means comprises roll angular rate detecting means for detecting a roll angular rate of the vehicle, and roll angle detecting means for detecting a roll angle of the vehicle or roll angle calculating means for calculating by integration a roll angle of the vehicle from the roll angular rate detected by the roll angular rate detecting means, and the activation determining means comprises rollover determining means having a two-dimensional map with roll angle and roll angular rate of the vehicle as parameters, the two-dimensional map having a boundary line set to separate a rollover region in which a vehicle rollover can occur and a non-rollover region in which the vehicle rollover cannot occur, and the rollover determining means performs determination of the likelihood of a vehicle rollover by putting a value of the roll angle and a value of the roll angular rate into the two-dimensional map.

4. The activating apparatus according to claim 3, wherein the determination condition changing means sets a second boundary line with a larger threshold value than the first-mentioned boundary line onto the two-dimensional map that is determined by shifting the first-mentioned boundary line in a direction

to mitigate the likelihood of a vehicle rollover.

5. The activating apparatus according to claim 3, wherein the activation
determining means further comprises variation calculating means for
calculating a variation in roll angular rate with time, and the activation
determining means performs determination of activation of the protection
device on the driver's seat side based on the variation in roll angular rate
calculated by the variation calculating means and a result of the determination
performed by the rollover determining means.

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6. The activating apparatus according to claim 4, wherein the activation
determining means further comprises variation calculating means for
calculating a variation of the roll angular rate with the time past, and the
activation determining means performs determination of activation of the
protection device on the driver's seat side based on the variation of the roll
angular rate calculated by the variation calculating means and a result of the
determination performed by the rollover determining means.

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